

Preface

This issue of the *IBM Systems Journal* contains papers on security, data bases, distributed processing, and system tuning. The first paper, by Baker, illustrates a procedure for logically assigning data and applications in a distributed data processing environment, using in the example some IMS data from a steel mill system. The procedure is an iterative process leading to the grouping of data and applications among the nodes of a system so as to minimize interdependencies. Another aspect of distributed processing is examined by Harrison in a paper on the IBM 8100's software support of distributed processing within an SNA network.

System tuning has been a subject of growing interest to the data processing professional. Many system tuning monitors are based on a utilization approach that measures the active time of systems resources and their users. A prototype that uses an alternate but complementary approach, analyzing contention in a system, has been developed and implemented on MVS at the Thomas J. Watson Research Center. The paper by Yuval contains a discussion of contention analysis and the prototype that applies the concept.

The paper by Wood, Fernandez, and Summers is a study of the requirements, policies, and models for data base security. Theoretical models are used to introduce concepts and to provide a framework for the evaluation of security approaches in actual data base systems. Data security is also the subject of the paper by Konheim, Mack, McNeill, Tuckerman, and Waldbaum. Encryption using the Data Encryption Standard (DES) is employed in a set of application programs called the Information Protection System, designed to increase computing-center security at the Thomas J. Watson Research Center.

I would like to thank Dr. Dijkstra for his review of the new book on structured programming by Linger, Mills, and Witt.

Connie A. Thiel
Editor